

Tire Retreading and Recycling

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INTRODUCTION

When car and truck tires become worn, they can be restored with new tread. According to the Tire Retread Information Bureau, there is no significant difference in quality between new and retreaded tires. Many tires can be repeatedly re-treaded, delaying the landfill disposal of the tire. Large truck tires are typically retreaded as part of a routine tire-management program. Smaller tires, such as those used on passenger cars, can also be retreaded, although fleet managers typically prefer to purchase new tires. Two reasons are cited for this preference. First, the low cost of new tires purchased through large government contracts makes it difficult for retreads to compete and, second, retread passenger tires are perceived to be of lower quality than new tires, presenting safety concerns that must be resolved before they can be used.

USAGE HISTORY

The county retreads tires for trucks and other heavy equipment at the Renton Maintenance Facility, Fleet Administration Division and Solid Waste Operations. This not only avoided landfill disposal of tires, but also saves the county approximately half of the new-tire expense, as retreading a tire is half the cost of buying a new tire.

Metro Transit leases tires for its fleet of 1400 buses. This contract requires the contractor to do all of the maintenance repair and retreading and manage the life of the tire.

King County also recycles tires at the end of life. The Solid Waste Division is charged with cleaning up illegal dumping, which often includes old tires. The county regularly contracts with a recycler for these tires.

BID AND CONTRACT SPECIFICATIONS

King County Contracts

King County has various contracts for tire retreading, recycling and leasing.

Tire Retreading Technical Specifications

King County now uses the State of Washington [contract #00113](#) for tire retreading services. Here is an excerpt of the specification:

SPECIFICATION

Tire Retreading Services.

Tire Retreading for over the road class 3 thru class 8 vehicles, Agriculture, and Non-Highway Service (NHS) tires as well as Rim refurbishing

The successful bidder shall be an established business that does tire retreading and possesses the necessary equipment and personnel necessary to meet the product and service requirements identified herein with no less than five (5) years' experience in tire retreading and road service business.

Environmental Goal: Use of environmentally preferable goods and services to include post-consumer waste and recycled content

I. Tire Retreading Services:

Retreading Specifications: Tire Retreading and Tire Repair shall conform to industry accepted specifications. It is the State's intention to award to a Vendor that produces high quality products verified through Non-Destructive Testing (NDT). The successful Vendor shall test every casing to determine viability for retreading. Additionally the Vendor shall test the product during the retreading process. Acceptable NDT processes are Holography, Sheragraphy, X-Ray, Ultrasonics, High Pressure Casing Inspection Machines, and Electronic Inspection Equipment.

Tread width will be based upon manufacturer recommendation for casing being retreaded.

- Contractor will not sub-contract retreading services to any other company.
- Only casings meeting the following parameters are to be retreaded.

1. Age of the casing shall be within 10 years of the manufacture date.
2. No more than two hole repairs will be permitted. No bead repairs to be performed at the time of retreading.
3. Any casings provided by the purchaser will be premium lines of Michelin, Goodyear or equivalent.

A Fleet representative may authorize deviation from this standard on an exception basis. It's understood that deviation from the contract standard may result in an additional cost to the purchaser.

Basic Tire Retreading Program, Class 3 thru 8: includes (1) Retreading the Purchaser's tire castings;

1. Retreading the tire casings includes all the following bulleted items listed below. The cost of which is included in cost of the retread tires purchased.
 - Mounted Tire Program: Pickup and return of tires on wheels to be retreaded or repaired. Returned tires will be on their wheels ready for service. Returned retreaded tires will be those provided by the Purchaser.
 - Some purchasers may require the Contractor inventory a limited quantity of their retreaded tires. Contractor will pickup and return will be on Contractor's routine route schedule unless otherwise agreed.
 - The guaranteed tire turnaround time from pickup to delivery of the newly retreaded tire shall not exceed 7 calendar days. Example: A tire picked up on Friday would be delivered on or before Friday of the following week. Generally, the contractor will pickup casings on their routine scheduled route. In the event the fleet facility that does not have a scheduled pickup, the Contractor shall guarantee a pickup within 3 days or as mutually agreed.

- **Yard Service:** Periodic inventory of fleet tire conditions and inventory of tires and quality control check. Contractors service personnel will wear high visibility vests, chalk tire(s), use Jack stands, follow lock-out/tag out procedures, wear eye, ear & foot protection while working on the edge of any public road or at a Purchasers facility.
- **Training and Seminar Participation:** Upon request the contractor will provide training on tires at no cost. Training is intended to include on a fleet and statewide level.
- **Casings not meet the contract parameter:** Any tire casing not meeting the casing quality parameter must be returned to its pick up point with a Not Retreadable Casing (NRC) document. The NRC document shall list all pertinent information as to why the tire casing was rejected. Retreaded casing remain the property of the Purchaser. The Contractor will advise the Purchaser within 3 days if the casing failed to meet the minimum contract parameter for retreading.
- **Accountability/Reporting (Provided to the customer):**

Accountability for States Casings: All tires removed from purchasers facility must be accounted for on a written record.

Scrap Tire Analysis: Contractor shall furnish a full report to the Purchaser on a quarterly basis listing the total number of tires submitted for retreading, number of times deemed unfit for retreading, failures by tire manufacture, failures by retread manufacture, and warranty credits.

In addition, the reports shall include the following information on each tire: Casing brand code, radial®, Tire size, Retread Design, Out of Service reason, Original tread depth (32nds), remaining tread depth (32nds), and any recommendations based on observations to prolong tire wear.

- **Warranty:** All tires repaired or retreaded under this contract shall carry the contractor's standard commercial guarantee against defects in materials and workmanship. Adjustments shall be based upon the percentage of tread wear, regardless of age or mileage. The Contractor and authorized Fleet designee will meet quarterly to discuss tires warranty issues.
- Contractor will provide within 90 days and every six-month thereafter for the duration of the contract, a fleet survey and recommend a program to minimize cost and increase tire life, mileage, and fuel efficiency.

2. Rim Refurbishing Services/ Basic Rim Refurbishing Program: includes

1. Inspection of rim to determine continued usability.
 2. Removal of all rust and debris by media blasting (sand, glass, etc.)
 3. Application of a powder coat 2-4 mils thick (color TBD by purchaser)
 4. Final inspection
- The guaranteed tire turnaround time from pickup to delivery of the newly refurbished rim shall not exceed 20 calendar days. Generally, the contractor will pickup tire and/or rim on their routine scheduled route. In the event the fleet facility that does not have a scheduled pickup, the Contractor shall guarantee a pickup within 8 business days or as mutually agreed.
 - **Accountability/Reporting (Provided to the customer):**
 Accountability for States Rims: All rims removed from purchasers facility must be accounted for on a written record.
 Damaged Rim Analysis: Contractor shall furnish a full report to the Purchaser on a quarterly basis listing the total number of rims submitted for refurbishing, number of rims deemed unfit for refurbishing, and report any patterns observed that cause rims to be unfit for refurbishing.

Warranty: All rims refurbished under this contract shall carry a guarantee against defects in materials and workmanship. The Contractor and authorized Fleet designee will meet monthly no less than monthly to discuss tires warranty issues.

Tire Recycling Bid Specification

This section contains excerpts (shaded areas) from the 2013 bid

5.1 Introduction of Specifications

- A. Tires to be recycled come from two distinctly different sources
 - 1. The King County Solid Waste Division (SWD) manages a program to clean up litter and illegal dump sites on public land throughout King County. The County identifies the dump sites, arranges for them to be cleared, and has the tires brought to collection bins at Transfer Stations. The Solid Waste Division also recycles tires from SWD vehicles.
 - 2. King County Roads Services recycles tires from the County's various fleets (except for the bus fleet), as well as tires left along unincorporated King County road right-of-ways. Those tires are collected at the Divisions 1 through 4 locations and KC headquarters/ ER&R.
- B. Acceptable use for tires accepted under the contract shall be:
 - 1. Reused as used or retreaded tires
 - 2. Reprocessed
 - 3. Granulated for incorporation into new products
 - 4. Shredded
 - 5. Used as tire derived fuel (TDF).
- C. UNDER NO circumstances shall any tire hauled from a county facility or other location be disposed of unlawfully, storage long term on your property, or placed in a landfill, unless prior approval by King County.

5.2 Contractor Responsibility

- A. For coordinating with county staff at each location for pick-up requirements. The county requires for some locations that a King County employee be present at each pick and that employee verify count and type of tires picked up for recycling.
- B. At the time of pick-up Contractor shall present to County a receipt of tires picked-up
- C. Shall pick-up tires at King County Facilities and yet to be determined locations; when notified by King County Staff. The time between notification and pick up shall not exceed five (5) working days unless prior written approval by King County. Contractor will notify the King County contact manager of the pick up date.
- D. Provide all labor and trucks for loading and transportation of tires to the vendor facility.
- E. Provide a receipt with each invoice indicating quantity and category of the tires picked up.
- F. The receipt shall include the number of tires that were recycled.

5.3 County Responsibility

- A. Have personnel available at time and location mutually agreed to by the county and Contractor.
- B. County will notify Contractor when there are at least 100 tires for pickup

C. County may elect to deliver small loads of tires to the Contractor

5.4 Contractor Qualification

The County may at any point in the bid evaluation or during the Contract verify that the Contractor is meeting the qualifications in the ITB/Contract.

Part of the Contractor Responsibility determination will be verifying that:

- A. The Contractors is an established waste recycler of used tires,
- B. Has adequate facilities, personnel and equipment necessary to perform all requirements, terms, and conditions of the contract.
- C. Is operating out of a commercial facility that is open and accessible without prior notice, a minimum of eight (8) consecutive hours per day, anytime between 6:00 am and 6:00 pm. Monday through Friday. State hours of operation:
- D. Hours: _____ a.m. until _____ p.m. Days: _____ through _____
- E. Have all the required permits and State or local business license(s).
- F. Contractor recycling location is within 100 miles of the Seattle Core Business District.

Lease of Bus Tires and Associate Equipment

King County Metro Transit leases bus tires. One reason for this is convenience, as there is only one contract to maintain. Also, the contractor is responsible for all maintenance of the tires, such as wear and repair. Following are excerpts (shaded areas) from the 2016 bid requirements:

General scope:

Under this contract, the Contractor shall lease bus tires on a mileage basis to be used on vehicles now owned and operated by King County and on vehicles, which may be acquired during the contract. In addition, the Contractor shall provide service necessary to maintain and repair the tires supplied under this or previous contracts.

King County currently has 1412 active coaches with a total fleet of 1,531 coaches. There are 657 standard buses, 628 articulated buses and 154 trolley buses and approximately 35 small buses

Tire Requirements

- A. Tires shall be constructed and maintained so as to comply with all regulatory agency requirements. Re-grooved, recapped or retreaded tires complying with local, state, federal and King County specifications may be used on all rear wheels of buses, including the bogie axle of articulated coaches, however, King County reserves the right to terminate this practice at any time Re-grooved, recapped or retreaded tires will not be permitted on front wheels. When coaches are at the end of their service life and scrapped a formal routing document shall accompany any coach that is sent to the scrapper with all tires accounted for that are to be returned to King County. The contractor will be responsible for picking up tires and wheels from the scrapper. Once the tires have been returned from scrapper to King County, they will be checked back into tire inventory using this documentation method.
- B. The Contractor shall supply all tires, valves, etc. for coaches, and shall furnish a sufficient amount to keep all coaches fully equipped and to maintain enough spares to ensure uninterrupted service.
- C. The Contractor shall maintain tire pressure in all tires to meet King County specifications and Tire and Rim Association load tables. In addition, all wheels are to be torqued to the coach manufacturer's specifications. When wheel removal and installation is needed, the Contractor will be required to re-torque the wheels between 50 and 100 miles of in service use The Contractor shall document this occurrence and report it on a monthly basis.

- D. When this service is needed the vendor shall notify King County and King County will then make the coach available for changing the tire.
- E. Only tires capable of safely sustaining a speed of 55 mph for a period up to one hour are acceptable for use. King County may, at its discretion, require the Contractor to furnish test results related to tire performance. The tires shall meet or exceed G.A.W.R.
- F. The selected Contractor will be required to provide radial tires that meet the requirements of the coaches and all other standards referenced in this specification.
- G. The selected Contractor will be required to provide an all season tire on the drive axle of those coaches that cannot be chained for adverse weather.
- H. The sole determination as to the equivalence of the tire offered shall be the responsibility of King County. Approved equal tires are determined after bid opening and before contract award.
- I. Tires which do not comply with local, state, federal and/or King County specifications shall not be allowed on King County property, whether on coaches or in storage. Tires on King County property that do not meet the above specifications are to be removed on a weekly basis.
- J. The Contractor shall be required to furnish King County with test results related to tire performance.

Branding

The Contractor's tires are to be uniquely and individually branded in accordance with industry standards and King County's approval prior to installation on any King County fleet. Each recapped tire's branded identification number shall have an "R" as its last digit.

FOR MORE INFORMATION

[Tire Retread and Repair Information Bureau \(TRIB\)](#)



[Tire Purchasing Guide](#) - Responsible Purchasing Network (RPN) – includes retread tires, low-rolling resistance tires and wheel weights

VENDOR INFORMATION

King County's current suppliers:

Tire Retreading

Alpine Commercial Recycling (Woodinville, WA)
Phelps Tire Co Inc
Wingfoot Commercial Tire Systems

Tire Recycling

Tire Disposal & Recycling (Portland, OR) - [contract #5574998](#)

Tire Leasing – Bus

Bridgestone/Firestone N. American Tire